APRIL/MAY 2023

CSEL55 — PCB DESIGN AND FABRICATION

Time : Three hours Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. What is through-hole technology?

2. Give the advantages of multi-Layer PCBs.

3. Write the cooling requirement of PCB.

4. Define package density.

5. What is photo resist?

6. State the features of wet film resist.

7. What is etching machine?

8. Mention the significance of man soldering.

9. What is automation in PCB design?

10. Define supply line noise.

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Write short note on single sided board.

Or

(b) Outline the limitations of SMT.

12. (a) Elucidate the component placing and mounting.

Or

(b) Brief the artwork taping guidelines.

13. (a) Explain the basic printing process for double sided PCB's.

Or

(b) Describe the coating process for wet film resists.

14. (a) Discuss the etchant system.

Or

(b) Outline the followings

(i) Solder joints

(ii) Solder alloys

15. (a) Describe the followings

(i) Reflection

(ii) Crosstalk.

Or

(b) Explain the electromagnetic interference.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Describe the plated through holes technology.

17. Explain the artwork taping guidelines.

18. Discuss the dry film resist.

19. Explain the soldering and desoldering tools.

20. Explain: Automated artwork drafting.

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